

§ 86.02

the sound pressure level specified for the forward axis, so that the range of audibility in any direction will be at least half the range required on the forward axis. The sound pressure level shall be measured in that one $\frac{1}{3}$ rd-octave band which determines the audibility range.

(e) *Positioning of whistles.* (i) When a directional whistle is to be used as the only whistle on the vessel and is permanently installed, it shall be installed with its forward axis directed forward.

(ii) A whistle shall be placed as high as practicable on a vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel. The sound pressure level of the vessel's own signal at listening posts shall not exceed 110 dB(A) and so far as practicable should not exceed 100 dB(A).

(f) *Fitting of more than one whistle.* If whistles are fitted at a distance apart of more than 100 meters, they shall not be sounded simultaneously.

(g) *Combined whistle systems.* (i) A combined whistle system is a number of whistles (sound emitting sources) operated together. For the purposes of the Rules of Subchapter E a combined whistle system is to be regarded as a single whistle.

(ii) The whistles of a combined system shall:

(1) Be located at a distance apart of not more than 100 meters;

(2) Be sounded simultaneously;

(3) Each have a fundamental frequency different from those of the others by at least 10 Hz; and

(4) Have a tonal characteristic appropriate for the length of vessel which shall be evidenced by at least two-thirds of the whistles in the combined system having fundamental frequencies falling within the limits prescribed in paragraph (b) of this section, or if there are only two whistles in the combined system, by the higher fundamental frequency falling within the limits prescribed in paragraph (b) of this section.

NOTE TO PARAGRAPH (G): If, due to the presence of obstructions, the sound field of a single whistle or of one of the whistles referred to in paragraph (f) of this section is likely to have a zone of greatly reduced signal level, a

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combined whistle system should be fitted so as to overcome this reduction.

(h) *Towing vessel whistles.* A power-driven vessel normally engaged in pushing ahead or towing alongside may, at all times, use a whistle whose characteristic falls within the limits prescribed by paragraph (b) of this section for the longest customary composite length of the vessel and its tow.

§ 86.02 Bell or gong.

(a) *Intensity of signal.* A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at 1 meter.

(b) *Construction.* Bells and gongs shall be made of corrosion-resistant material and designed to give clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of 20 meters or more in length. Where practicable, a power-driven bell striker is recommended to ensure constant force but manual operation shall be possible. The mass of the striker shall be not less than 3 percent of the mass of the bell.

§ 86.03 Approval. [Reserved]

PART 87—ANNEX IV: DISTRESS SIGNALS

Sec.

87.01 Need of assistance.

87.02 Exclusive use.

87.03 Supplemental signals.

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§ 87.01 Need of assistance.

The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

(a) A gun or other explosive signal fired at intervals of about a minute;

(b) A continuous sounding with any fog-signaling apparatus;

(c) Rockets or shells, throwing red stars fired one at a time at short intervals;

(d) A signal made by any method consisting of the group . . . - - - . . . (SOS) in the Morse Code;